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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,672

10/05/2006

Ralf Kuchner

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EXAMINER

TANNER, JOCELIN C

ART UNIT

PAPER NUMBER

3731

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,672	<b>Applicant(s)</b> KUEHNER ET AL.	
	<b>Examiner</b> JOCELIN C. TANNER	<b>Art Unit</b> 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/2/2008, 10/05/2006</u> .                                    | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**2. Claims 1-3, 6-9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Reilly et al. (US Patent No. 5,916,197).**

3. Regarding claim 1, Reilly et al. discloses an arrangement of a plurality of supply cylinders (20) that are capable of storing a working fluid that can be expelled by pistons (70) through outlets (30), a pressure conduit (60) in communication with the outlets and into which a working fluid is expelled, at least one actuation device (100) to actuate the pistons, and a change-over device (110) that rotates to drive pistons in a timed sequence to eliminate pulsatile flow and consecutively empty supply cylinders (column 3, lines 1-10, 30-33, 55-65, column 5, lines 1-10, 26-35, 56-65).

4. Regarding claim 2, Reilly et al. discloses a change-over device (11) that is capable of providing consecutive actuation periods of each of the pistons (70) such that expulsion of the fluid into the pressure conduit is uninterrupted (column 5, lines 56-60).

5. Regarding claim 3, Reilly et al. discloses sealing devices (40) are provided to provide leak proof connection to each fluid outlet wherein the valves ensure the desired direction of flow is maintained (column 5, lines 5-9).

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6. Regarding claim **6**, Reilly et al. a transport gasket (72) that is provided at the outlet of each cylinder (column 5, lines 41-45).

7. Regarding claims **7, 8 and 12**, Reilly et al. discloses a change-over magazine (10) that defines chambers that closely surround and receive a group of supply cylinder and piston arrangements and can be connected to the pressure conduit to form a single unit (Fig. 1).

8. Regarding claim **9**, Reilly et al. discloses collection devices located between the check valves (40) and the outlet ports (30) wherein working fluid from the supply cylinders (20) are guided to the pressure conduit (60) (Fig. 1B).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly et al. (US Patent No. 5,916,197) in view of Neracher (US Patent No. 6,994,127).**

11. Regarding claim **4**, Reilly et al. discloses all of the limitations previously discussed except for a plurality of actuation devices.

Neracher teaches a device including a plurality of pistons residing in cylinders and having motors to generate movement of each piston (column 11, lines 39-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a motor for each respective piston to the device of Reilly et al., as taught by Neracher, to independently control each piston.

**12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly et al. (US Patent No. 5,916,197) in view of Palmer (US Patent No. 4,820,272).**

**13.** Regarding claim 5, Reilly et al. discloses all of the limitations previously discussed except for a back-flow barrier that prevents the piston from being pushed back into a previous position.

Palmer teaches a device including a piston (24) disposed within a cylinder (11) wherein the piston includes sealing rings (25) that engage the inner wall of the cylinder at the engagement zones (17, 18) to block the removal of the piston (column 2, lines 39-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a back-flow barrier to the pistons of Reilly et al., as taught by Palmer, to prevent the re-use of the piston.

**14. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly et al. (US Patent No. 5,916,197) in view of McGregor (US Patent NO. 5,116,313).**

**15.** Regarding claims **10 and 11**, Reilly et al. discloses ventilation devices (630) within the change-over magazine (10) wherein air is removed, however, Reilly et al. fails to disclose the ventilation devices being provided between the outlets of the supply cylinders and the pressure conduit.

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McGregor teaches a device including a cylinder (10') with a piston (15) disposed within wherein air is released through vent (49) between the outlets of the supply cylinders and the pressure conduit (13) (column 5, lines 65-68, column 6, lines 1-3, Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the device of Reilly et al. with ventilation devices between the pressure conduit and supply cylinders, as taught by McGregor, since it would not affect the functioning of the device and for the predictable result of removing air bubbles prior to the injection of the medium into the patient.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOCELIN C. TANNER whose telephone number is (571)270-5202. The examiner can normally be reached on Monday through Thursday between 9am and 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jocelin C. Tanner/  
4/22/2009  
Examiner, Art Unit 3731

/Anhtuan T. Nguyen/  
Supervisory Patent Examiner, Art Unit 3731  
4/26/09